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LIGHT AMPLIFICATION DEVICE

## Abstract:

**PROBLEM TO BE SOLVED:** To perform appropriate amplification control, even in the case that an input wavelength number changes, without inviting complications of a device by adopting the simple detection method of controlling the gain of a light amplification part, corresponding to the input light level of inputted optical signals relating to a light amplification device used in a wavelength multiplex light transmission system.

**SOLUTION:** This device is provided with a light amplification part 1 for amplifying optical signals, a light output monitoring part 2 for monitoring the light output of the light amplification part 1, a control part 3 for comparing the light output of the light amplification part 1 which is monitored in the light output monitoring part 2 with a prescribed reference value and controlling the light amplification part 1, so as to turn the light output of the light amplification part 1 to a desired output value and an input light level detection part 4 for detecting the input light level of the optical signals. The control part 3 controls the light output level of the light amplification part 1 by changing the reference value, used at the time of comparison processing corresponding to the input light level detected in the input light level detection part 4.

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